



CALS TEST NETWORK

CTN Test Report

92-006

AFTB-ID
91-015



Technical Publication Transfer Test Using Bow Industries, Inc.



Tape to Optical Disk to Tape Transfer System



Quick Short Test Report



2 April 1992



Prepared for

Air Force Materiel Command

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This report and those involved in its preparation do not endorse any product, process, or company stated herein. Use of these means by anyone does not imply certification by the CALS Test Network.

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1. Introduction

1.1 Background

The DoD Computer-aided Acquisition and Logistics Support (CALS) Test Network (CTN) is conducting tests of the military standard for the Automated Interchange of Technical Information, MIL-STD-1840A, and its companion suite of military specifications. The CTN is a DoD-sponsored confederation of voluntary participants from industry and government managed by the Air Force Logistics Command.

The primary objective of the CTN is to evaluate the effectiveness of the CALS standards (Standards) for technical data interchange and to demonstrate the technical capabilities and operational suitability of those Standards. Two general categories of tests are performed to evaluate the Standards, formal and informal. Formal tests are large, comprehensive tests that follow a written test plan, require specific authorization from DoD, and may take months to prepare, execute, and report.

Informal tests are used by the CTN technical staff to broaden the testing base by including representative samples of the many systems and applications used by CTN participants. They also allow the CTN staff to gain feedback from many industry and government interpretations of the Standards, to increase the base of participation in the CALS initiative, and to respond, in a timely manner, to the many requests for help that come from participants. Participants take part voluntarily and are benefited by receiving an evaluation of their latest implementation (interpretation) of the Standards, interacting with the CTN technical staff, gaining experience in use of the Standards, and developing increased confidence in them. The results of informal tests are reported in Quick Short Test Reports (QSTRs) that briefly summarize the standard(s) tested, the hardware and software used, the nature of the test, and the results.

1.2 Purpose

The purpose of the informal test reported in this QSTR was to analyze Bow Industries transfer system to copy a CALS tape to an optical disk and return the data back to a CALS MIL-STD-1840A tape. The AFTB provided Bow Industries with a CALS 9-track tape. They delivered to the AFTB another MIL-STD-1840A 9-track magnetic tape.

2. Test Parameters

Test Plan: AFTB 91-15

Date of
Evaluation: 15 May 1991

Evaluator: George Elwood
Air Force CALS Test Bed
AFMC(I)/ENCT
Wright-Patterson AFB, OH 45433

Data
Originator: Bow Industries, Inc.
John Jewell
4116 B Walney Road
Chantilly, VA 22021

Data
Description: Technical Manual Test
1 document declaration file
1 DTD
1 TEXT file
5 Raster files

Data
Source System: Unknown

Evaluation
Tools Used:

MIL-STD-1840A (TAPE)
SUN 3/280
CTN Tapetools (v1.2.8) UNIX

Standards
Tested: MIL-STD-1840A
MIL-M-28001
MIL-R-28002

3. Test Procedure

The Air Force Test Bed provided Bow Industries with a MIL-STD-1840A 9-track tape. This tape contained sample files, both MIL-M-28001 SGML tagged text and MIL-R-28002 raster images. Bow Industries then transferred the tape information to an erasable optical disk. The data was then transferred back to a tape. To further test the procedure, the new tape was then transferred back to another optical disk. Again, the data was transferred back to a 9-track tape which was sent to the Air Force Test Bed. Bow Industries used their TAPE-IMAGE software for these transfers.

The Air Force Test Bed tested the resulting tape with the results as shown below.

4. 1840A Analysis

4.1 External Packaging

The tape was hand-carried to the Air Force Test Bed. No packaging was involved.

The tape was not enclosed in a barrier bag or barrier sheet material as required by MIL-STD-1840A, para. 5.3.1.2. Inspection of the tape reel showed the required label indicating the recording density as required by MIL-STD-1840A, para. 5.3.1.

4.2 Transmission Envelope

The 9-track tape received by the Air Force Test Bed contained MIL-STD-1840A files. The files were named per the standard conventions. The files were compared to those provided by the AFTB and were found to be duplicates.

4.2.1 Tape Formats

The 1840A Tape was run through the AFTB TAPETOOL utility version 1.2.8. No errors were reported by the tape tool.

4.2.2 Declaration and Header Fields

No errors were reported.

4.2.3 Files

All files were compared with those provided to Bow Industries. The files provided were valid CALS files. The comparison between the files showed exact duplicate files. For this reason, the files were not tested.

5. Conclusions and Recommendations

In summary, the MIL-STD-1840A tape from Bow Industries was correct. No errors were noted on the tape. Bow Industries took the tape from the AFTB and transferred the data to an optical disk and then copied the data back to a 9-track tape. No errors were generated during this procedure.

Further transfer testing will be made with optical disk formats to develop an alternate transfer media.